

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A coating apparatus which forms a plurality of layers on a continuously travelling base material, comprising:

an upstream-side coating section which coats a first coating liquid to the base material to form a lower layer;

a downstream-side coating section disposed at the downstream side of the upstream-side coating section in a direction to which the base material is conveyed, and coating, onto the lower layer, a second coating liquid of which composition is the same as or different from that of the first coating liquid, to thereby form an upper layer;

an undercoat liquid coating section disposed so as to move close to or away from the base material,

when an uncoated portion, which is a portion to which no first coating liquid is coated, is generated at a time of forming the lower layer, the undercoat liquid coating section being contacted the base material before the uncoated portion reaches the undercoat liquid coating section, and coating an undercoat liquid to the uncoated portion, and

when coating of the first coating liquid is restarted, the undercoat liquid coating section being removed from the base material after a lower layer formed again reaches the undercoat liquid coating section, and stopping coating of the undercoat liquid; and

a liquid run-out section which, at the latest, just before the undercoat liquid coating section is removed from the base material, stops coating of the undercoat liquid for the base material by making the undercoat liquid coating section into a state of running out of the liquid;

wherein the undercoat liquid coating section is formed as a bar coating device including an undercoating bar which rotates in contact with the base material to coat the undercoat liquid thereto; and

the liquid run-out section is formed as a speed reducer which makes the bar coating device into a state of running out of the liquid by reducing the number of rotation of the undercoating bar.

2. (original) A coating apparatus according to claim 1, wherein the liquid run-out section is formed as a liquid-supply stopping section which makes the undercoat liquid coating section into a state of running out of the liquid by stopping supply of the liquid to the undercoat liquid coating section.

3. (cancelled)

4. (original) A coating apparatus according to claim 1, further comprising an uncoated-portion detecting section which detects occurrence of the uncoated portion at the time of forming the lower layer, wherein

the undercoat liquid coating section coats the undercoat liquid to the uncoated portion when the uncoated-portion detecting section detects occurrence of the uncoated portion.

5. (cancelled)

6. (currently amended) A coating apparatus ~~according to claim 5,~~ which forms a plurality of layers on a continuously travelling base material, comprising:

an upstream-side coating section which coats a first coating liquid to the base material to form a lower layer;

a downstream-side coating section disposed at the downstream side of the upstream-side coating section in a direction to which the base material is conveyed, and coating, onto the lower layer, a second coating liquid of which composition is the same as or different from that of the first coating liquid, to thereby form an upper layer;

an undercoat liquid coating section disposed so as to move close to or away from the base material,

when an uncoated portion, which is a portion to which no first coating liquid is coated, is generated at a time of forming the lower layer, the undercoat liquid coating section being

contacted the base material before the uncoated portion reaches the undercoat liquid coating section, and coating an undercoat liquid to the uncoated portion, and

when coating of the first coating liquid is restarted, the undercoat liquid coating section being removed from the base material after a lower layer formed again reaches the undercoat liquid coating section, and stopping coating of the undercoat liquid;

a liquid run-out section which, at the latest, just before the undercoat liquid coating section is removed from the base material, stops coating of the undercoat liquid for the base material by making the undercoat liquid coating section into a state of running out of the liquid;

a signal output section which outputs a signal relating to generation of the uncoated portion and a signal relating to restarting of coating of the first coating liquid;

a calculating section which, based on the signal from the signal output section, calculates a timing at which the uncoated portion reaches the undercoat liquid coating section and a timing at which the lower layer formed again reaches the undercoat liquid coating section; and

a control section which, based on the calculating result of the calculating section, instructs coating the undercoat liquid on the uncoated portion or stopping of coating the undercoat liquid;

wherein the upstream-side coating section is disposed so as to move close to or away from the base material.

7. (original) A coating apparatus according to claim 6, wherein the signal relating to generation of the uncoated portion and the signal relating to restarting of coating of the first coating liquid are a removal signal indicating the upstream-side coating section being away from the base material and a contact signal indicating the upstream-side coating section contacting the base material.

8. (currently amended) A coating apparatus according to claim ~~[[3]]~~ 1, wherein the speed reducer makes the bar coating device into a state of running out of the liquid without stopping rotating of the undercoating bar.

9-11. (cancelled)

12. (new) A coating apparatus which forms a plurality of layers on a continuously traveling base material, comprising:

an upstream-side coating section constructed and arranged to be capable of forming a lower layer on the base material by coating a first coating liquid on the base material;

a downstream-side coating section disposed downstream of the upstream-side coating section relative to a conveyance direction of the base material, the downstream-side coating section being constructed and arranged to be capable of forming an upper layer on the lower layer by coating a second coating liquid on the lower layer;

an undercoat liquid coating section disposed so as to be movable with respect to the base material, and controllable so as to coat the undercoat liquid to the base material in areas where the first coating liquid was not applied to the base material;

a liquid run-out section, which controls the undercoat liquid coating section so as to stop coating the undercoat liquid onto the base material;

wherein the undercoat liquid coating section comprises an undercoating bar that is positioned to allow rotation in contact with the base material to coat the undercoat liquid thereto; and

the liquid run-out section comprises a speed reducer that reduces a rate of coating the undercoat liquid onto the base material by reducing a rotational speed of the undercoating bar.

13. (new) The coating apparatus of claim 12, further comprising:

a rotational drive source having a drive shaft; and

a interconnecting shaft interconnecting the drive shaft and the undercoating bar;

wherein the interconnecting shaft is constructed and arranged so that the undercoating bar can be moved with respect to the base material while remaining parallel to the drive shaft of the rotational drive source.

14. (new) A coating apparatus which forms a plurality of layers on a continuously traveling base material, comprising:

first coating means for forming a lower layer on the base material by applying a first coating liquid on the base material;

second coating means for forming an upper layer on the lower layer by applying a second coating liquid on the lower layer, the first and second coating means being arranged so that the base material travels from the first to the second coating means; and

third coating means for an undercoat layer by applying an undercoating liquid to areas of the base material to which the lower layer was not applied by the first coating means, the third coating means comprising an undercoating bar that is capable of selectively transferring the undercoating liquid to the base material;

wherein the third coating means comprises a speed controller arranged to control a rotational speed of the undercoating bar, the speed controller being constructed and arranged to terminate transfer of the undercoating liquid to the base material by reducing the rotational speed of the undercoating bar without terminating rotation of the undercoating bar.

15. (new) The coating apparatus of claim 14, wherein the speed controller comprises a brake and a drive source, the

brake being arranged so as to reduce the rotational speed of the undercoating bar, the drive source being connected by a clutch to the undercoating bar to cause rotation of the undercoating bar.

16. (new) The coating apparatus of claim 15, wherein the speed controller is constructed and arranged so that termination of the transfer of the undercoating liquid is achieved by applying the brake to the undercoating bar to slow rotation of the undercoating bar to a non-zero rotational speed at which the undercoating liquid is no longer transferred to the base material, and engaging the clutch so that the drive source maintains rotation of the undercoating bar at a non-zero rotational speed that does not transfer the undercoating liquid to the base material.